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09/557,382	04/25/2000	Andrew Trosien	AT00072	8250
20350 7590 12/11/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER FRENEL, VANEL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/557,382
Filing Date: April 25, 2000
Appellant(s): TROSIEN ET AL.

MAILED

DEC 11 2007

GROUP 3600

Nena Bains
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 14th, 2005 appealing from the
Office action mailed July 14th, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6283761	JOAO	9-2001
5683243	ANDREIKO ET AL.	11-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joao (6,283,761) in view of Andreiko et al (5,683,243).

(A) As per claim 1, Joao discloses an dental treatment planning system, comprising: an input form to receive one or more dental patient inputs (Col.25, lines 1-67).

Joao does not explicitly disclose an engine adapted to receive the dental patient data from the input form and validating the dental patient data in a predetermined sequence.

However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko suggests an engine adapted to receive the dental patient data from the input form and validating the dental patient data in a predetermined sequence (See Andreiko Col.21, lines 48-67 to Col.22, line 56).

It would have been obvious to one of ordinary skill in the art at time of the

invention to have included the feature of Andreiko within Joao's apparatus with the motivation of providing a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

(B) As per claim 2, Andreiko discloses the system wherein the engine prompts the user for additional data based on previous entries (Col.12, lines 48-67 to Col.13, line 53; Col.33, line3s 33-65).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(C) As per claim 3, Andreiko discloses the system wherein the treatment includes a diagnostic phase, a goal phase and a treatment path determination phase (Col.13, lines 20-42).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1 , and incorporated herein.

(D) As per claim 4, Andreiko discloses the system wherein the engine checks validity

for data entered intraphase (Col.13, lines 20-42).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1 , and incorporated herein.

(E) As per claim 5, Andreiko discloses the system wherein validity is determined by crosschecking against a mutually exclusive condition (Col.14, lines 54-67 to Col.15, line 37).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(F) As per claim 6, Andreiko discloses the system wherein the engine checks validity for data entered interphase (Col.13, lines 20-42).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1 , and incorporated herein.

(G) As per claim 7, Andreiko discloses the system wherein the engine checks whether the treatment results in an improvement in the patient (Col.3, lines 51-58*, Col.6, lines 20-33)

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(H) As per claim 8, Andreiko discloses the system wherein the engine checks whether the treatment meets an efficiency guideline (Col.3, lines 36-64).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1 , and incorporated herein.

(I) As per claim 9, Andreiko discloses the system wherein the engine checks whether the treatment meets a prudency guideline (Col.3, lines 3634).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(J) As per claim 10, Andreiko discloses the system further comprising an appliance having one or more properties, wherein the engine checks the treatment plan against properties of the appliance (Col.3, lines 59-67 to Col.4, line 37 to Col.14, lines 4-49).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(K) As per claim 11, Joao discloses a virtual health-care treatment system, comprising: a network to communicate information relating to the community, one or more patients coupled to the network (Co1.18, lines 50-65, Col.20, lines 40-50)., one or more treating professionals coupled to the network (Col.14, lines 13-67 to Col.15, line 17; Col.20, lines 13-67), and a server coupled to the network (Col.14, lines 49-67).

Joao does not explicitly disclose validating data entry relating to a patient treatment plan to an input form in a predetermined sequence and visualizing patient data in response to a user request.

However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko suggests validating data entry relating to a patient treatment plan to an input form in a predetermined sequence and visualizing patient data in response to a user request (See Andreiko, Col.21, lines 19-67., Col.24, lines 14-20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Andreiko within the system of Joao with the motivation of providing a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

(L) As per claim 12, Andreiko discloses the community wherein the treating professional views one or more of the following patient data visualization over the network'. a right buccal view', a left buccal view; a posterior view', an anterior view', a mandibular occlusal view; a maxillary occlusal view', an overjet view', a left distal molar view', a left lingual view', a lingual incisor view; a right lingual view; a right distal

molar view; an upper jaw view', and a lower jaw view (See Andreiko Col. 1, lines 33-65., Col.15, lines 19-55).

The motivation for combining the respective teachings of Joao and Andreiko are as discussed above in the rejection of claim 1, and incorporated herein.

(M) As per claim 13, Joao discloses the community wherein the treating professionals include dentists or orthodontists (Col.17, lines 25-30).

(N) As per claim 14, Joao discloses the community further comprising one or more partners coupled to the network (Col.16, lines 6-67; Col.17, line 1-31; Col.19, lines 32-67).

(O) As per claim 15, Joao discloses the community wherein the patients and the treating professionals access the server using browsers (Col.40, lines 13-67 to Col.41, line 32).

(P) As per claim 16, Joao discloses a method for performing dental treatment planning, comprising: receiving one or more dental patient inputs (Col.25, lines 1-67).

Joao does not explicitly disclose validating the dental patient data in a predetermined sequence.

However, this feature is known in the art, as evidenced by Andreiko. In particular, Andreiko suggests an engine adapted to receive the dental patient data from the input

form and validating the dental patient data in a predetermined sequence (See Andreiko Col.21, lines 48-67 to Col.22, line 56).

It would have been obvious to one of ordinary skill in the art at time of the invention to have included the feature of Andreiko within Joao's apparatus with the motivation of providing a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

(Q) Claims 17-25 recite the underlying process of the elements of claims 2-10, and respectively. As the various elements of claims 2-10 have been shown to be either disclosed by or obvious in view of the collective teachings of Joao and Andreiko, it is readily apparent that the apparatus disclosed by the applied prior art performs the recited underlying functions. As such, the limitations recited in claims 17-25 are rejected for the same reasons given above for system claims 2-10, and incorporated herein.

(10) Response to Argument

In the Appeal Brief filed on 9/12/07, Appellant's argues the followings:

(i) A prima facie case of obviousness has not been met because the Examiner's rejection fails to teach or suggest all the claims limitations of independent claims 1, 11 and 16.

(ii) Joao does not show "an engine adapted to receive the dental patient data from the input form and validating the dental patient data in a predetermined sequence" or "validating data entry relating to a patient treatment plan to an input form in a predetermined sequence and visualizing patient data in response to a user request".

(iii) Andreiko does not use logic rules to validate data entry. As such, Andreiko cannot provide any of the advantages.

(iv) There is no suggestion or motivation whatsoever in this cited section about a data validation engine. Appellant notes that hindsight reconstruction is impermissible.

Examiner will address Appellant first argument and related points in sequence as they appear in the Brief.

(I) With respect to Appellant first argument, it is respectfully submitted obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In Oetiker*, 977 F.2d 1443, 1445, 24 USPQ 2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d. 1038, 1039, 228 USPQ 685, 686 (Fed. Cir.1992); *In re Piasecki*, 745 F. 2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and *In re*

Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Using this standard, the Examiner respectfully submitted that he has at least satisfied the burden of presenting a prima facie case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Appellant's claimed invention. Note, for example, in rejection of claim 1, Examiner has stated the following:

As per claim 1, Joao discloses a dental treatment planning system, comprising:
An input form to receive one or more dental patient inputs (Col.25, lines 1-67).

Joao does not explicitly disclose an engine adapted to receive the dental patient data from the input form and validating the dental patient data in a predetermined sequence.

However, this feature is known in the art, as evidenced by Andreïko. In particular, Andreiko suggests an engine adapted to receive the dental patient data from the input form and validating the dental patient data in a predetermined sequence (See Andreiko Col.21, lines 48-67 to Col.22, line 56).

It would have been obvious to one of ordinary skill in the art at time of the invention to have included the feature of Andreiko within Joao's apparatus with the motivation of providing a custom orthodontic appliance which fabricated under the control of a computer directly from data from the teeth and/or jaw of a patient or a model thereof. The appliance so formed, when connected to the teeth of the patient to precise calculated finish positions without the need for the orthodontist to bend archwires over

the course of the treatment. As a result, the orthodontist's time is conserved, the treatment of the patient is achieved in a shorter amount of time and the finish positions of the teeth are more nearly ideal (See Andreiko Col.6, lines 20-30).

As such, it is respectfully submitted that an explanation based on logic and sound scientific reasoning of one ordinary skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner in the previous Office Action, incorporated herein, *Ex parte Levengood*, 28 USPQ 1300 (Bd. Pat. App. & Inter., 4/22/93).

(II) With respect to Appellant's second argument, the Examiner respectfully submitted that He relied upon the clear teachings of Andreiko whom suggested "The orthodontist 14 then communicates the information 16, for example, by transmitting the model 20, the prescription for treatment 27, a record of information 17 identifying the doctor 14 and the patient 12, together with information 19 containing statistical and historic data of the patient 12, to an appliance design facility 13, at some remote location. At the appliance design facility 13, the information 16 is digitized and input into the computer 30 for analysis. Alternatively, the orthodontist 14 may convert the information 16 to digital computer readable form and transmit the digitized information to the appliance design facility 13. In this alternative, the system 10 would be configured with the input computer 30 located at the orthodontist's office 11, and the orthodontist 14 or assisting personnel would perform portions of an data input procedure (94)" (See Andreiko, Col.21, lines 1-15; Col.21, lines 64-67 to Col.22, line 6) which correspond to

Appellant's claimed feature. As such, the Examiner respectfully submitted that such terms were given their broadest reasonable interpretations during examination, and since the applied reference clearly discloses the claimed limitations, when given their broadest reasonable interpretations, it is respectfully submitted that the Examiner's reliance on Andreiko is indeed proper. Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

(III) With respect to Appellant's third argument, it is respectfully submitted that Examiner relied upon the clear and unmistakable teaching of Joao for such a feature See Col.15, lines 18-47; Col.15, lines 59-67 to Col.16, line 18. Further, Joao discloses a healthcare network which enables healthcare providers and healthcare related products to download patient data to a central processing computer and/or any of the other computers and/or computer systems (See Col.3, lines 17-67). Furthermore, Appellant fails to consider the clear teaching of Joao's invention which is related in the field of dentistry, oral surgery and orthodontics etc. See Col.17, lines 25-30. As such, the Examiner respectfully submitted that such terms were given their broadest reasonable interpretations during examination, and since the applied reference clearly discloses the claimed limitations, when given their broadest reasonable interpretations, it is respectfully submitted that the Examiner's reliance on Andreiko is indeed proper. Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

(IV) With respect to Appellant fourth argument, the Examiner respectfully submitted that obviousness is determined on the basis of the evidence as a whole and the relative

persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685,686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143,147 (CCPA 1976).

Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a *prima facie* case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Applicant's claimed invention. Moreover, in the instant case, the Examiner respectfully notes that each and every motivation to combine the applied references are accompanied by select portions of the respective reference(s) which specifically support that particular motivation and/or an explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness. As such, it is NOT seen that the Examiner's combination of references is unsupported by the applied prior art of record. Rather, it is respectfully submitted that explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner, *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter., 4/22/93). Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

In addition, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes

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into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained. Thus, the teachings of Joao and Andreiko when considered with the knowledge that is generally available to one of ordinary skill in the art make obvious the limitations that Appellant disputes.

(11) Related Proceeding (s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

Vanel Frenel

Patent Examiner

Art Unit 3627

December 6, 2007

CONFEREES:

/F. Ryan Zeender/



Supervisory Patent Examiner, Art Unit 3627

Application/Control Number: 09/557,382

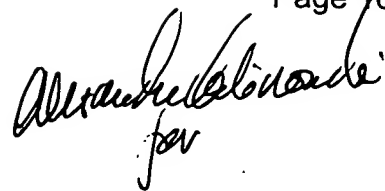
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Millin Vincent

Board of Appeals Specialist

Technology 3600

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A handwritten signature in black ink, appearing to read "Michael Cuff" in a cursive style.

MICHAEL CUFF
PRIMARY EXAMINER